

CLAIMS

1. A communication method wherein:
a symbol of one channel is transmitted by means of a
5 first carrier group, and
symbols of a plurality of channels modulated by means
of a different modulation method are multiplexed and
transmitted by means of a second carrier group.
- 10 2. A communication method wherein:
information on propagation path conditions estimated
by a communicating party is received;
a symbol is transmitted by means of a first carrier group
to a first communicating party; and
15 a symbol is transmitted by means of a second carrier
group to a communicating party whose propagation path
conditions are worse than those of said first communicating
party.
- 20 3. The communication method according to claim 1, wherein
a symbol transmitted by means of a first carrier group has
a higher degree of importance in communication than a symbol
transmitted by means of a second carrier group.
- 25 4. The communication method according to claim 1, wherein:
first data is transmitted by means of a first carrier
group;
a difference between second data and first data is

generated; and

said difference is transmitted by means of a second carrier group.

5 5. The communication method according to claim 1, wherein carriers of a first carrier group and second carrier group are arranged orthogonally.

6. The communication method according to claim 1, wherein:
10 a symbol of one channel is transmitted by means of a first carrier group at the start of communication; and after information on propagation path conditions estimated by a communicating party is received, symbols are transmitted by means of the first carrier group and a second
15 carrier group.

7. The communication method according to claim 2, wherein:
a known symbol is transmitted at the start of communication; and
20 information on propagation path conditions estimated by a communicating party using said known symbol is received.

8. A transmitting apparatus comprising:
a first modulation section that modulates a signal of
25 a first channel and generates a first symbol;
a second modulation section that modulates a signal of a second channel and generates a second symbol;
a first transmitting section that transmits the first

symbol by means of a first carrier group; and

a second transmitting section that multiplexes said first symbol and said second symbol and transmits those multiplexed symbols by means of a second carrier group.

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9. The transmitting apparatus according to claim 8, further comprising:

a receiving section that receives information on propagation path conditions estimated by a communicating party; and

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a determination section that determines transmission of a symbol by means of a first transmitting section to a first communicating party and transmission of a symbol by means of a second transmitting section to a communicating party whose propagation path conditions are worse than those of said first communicating party based on propagation path conditions of a plurality of communicating parties.

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10. The transmitting apparatus according to claim 8, wherein said first transmitting section transmits a symbol of a higher degree of importance in communication than a symbol transmitted by means of said second transmitting apparatus.

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11. The transmitting apparatus according to claim 8, wherein said first transmitting section and said second transmitting section transmit symbols in an arrangement whereby carriers are made orthogonal.

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12. The transmitting apparatus according to claim 8, wherein:

said first transmitting section transmits a symbol of a first channel by means of a first carrier group at the start
5 of communication; and

said second transmitting section transmits a symbol by means of a second carrier group after information on propagation path conditions estimated by a communicating party is received.

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13. The transmitting apparatus according to claim 8, wherein:

said first transmitting section transmits a known symbol at the start of communication; and

said receiving section receives information on
15 propagation path conditions estimated by a communicating party using said known symbol.

14. A receiving apparatus comprising:

a first receiving section that receives by means of a
20 first carrier group a radio signal in which a symbol of one channel is modulated;

a second receiving section that receives by means of a second carrier group a radio signal in which symbols of a plurality of channels modulated by means of a different
25 modulation method are multiplexed;

a first demodulation section that demodulates a signal received by means of a first carrier;

a second demodulation section that demodulates a signal

received by means of a second carrier; and

a separation section that separates a signal demodulated by means of said second demodulation section on a channel-by-channel basis.

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15. The receiving apparatus according to claim 14, further comprising:

an estimation section that estimates propagation path conditions based on a known symbol of a radio signal received
10 by a first receiving section; and

a transmitting section that transmits information on propagation path conditions estimated by said estimation section.

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